



SystemC CCI WG Parameter Value Change Callbacks

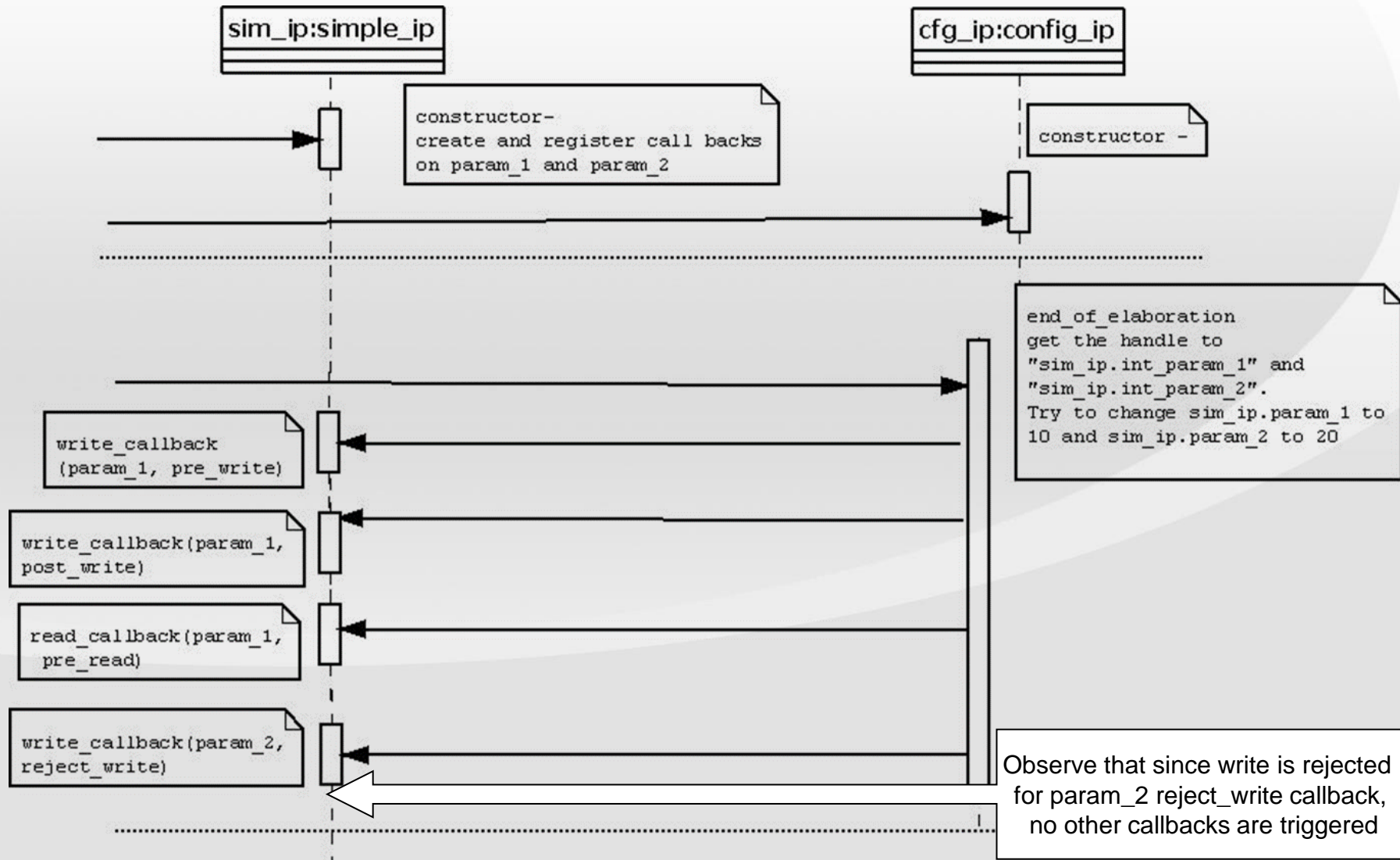
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Parameter Value Change callback

- **Demonstrate requesting and responding to value change notifications.**
- **User module creates couple of parameters and sets callbacks on both of them**
- **In the case of param_1, the user module would allow value change without any constraints.**
- **In the case of param_2, the user module would reject value change unconditionally.**

Sequence Diagram



Expected Output

(ex08_Parameter_Value_Change_Callbacks.log)

SystemC Simulation

```
Info: sim_ip: @0 s, typed_pre_read_callback:sim_ip.param_1 (1) by sim_ip
Info: sim_ip: @0 s, @Ctor: Value of sim_ip.param_1 is 1 (Default value Specified: 1)
Info: sim_ip: @0 s, typed_pre_read_callback:sim_ip.param_2 (2) by sim_ip
Info: sim_ip: @0 s, @Ctor: Value of sim_ip.param_2 is 2 (Default value Specified: 2)
Info: sc_main: Begin Simulation.
Info: cfg_ip: @0 s, config_ip::end_of_elaboration: [EXTERNAL] Set value of sim_ip.param_1 to 10
Info: sim_ip: @0 s, typed_pre_write_callback:sim_ip.param_1 (1 -> 10) by cfg_ip
Info: sim_ip: @0 s, typed_post_write_callback:sim_ip.param_1 (1 -> 10) by cfg_ip
Info: sim_ip: @0 s, typed_pre_read_callback:sim_ip.param_1 (10) by cfg_ip
Info: cfg_ip: @0 s, config_ip::end_of_elaboration: [EXTERNAL] Current value of sim_ip.param_1 is 10
Info: cfg_ip: @0 s, config_ip::end_of_elaboration: [EXTERNAL] Set value of sim_ip.param_2 to 20
Info: sim_ip: @0 s, reject_pre_write_callback: Rejecting Value change on sim_ip.param_2 (2 -> 20) by
cfg_ip
Warning: cfg_ip: @0 s, Caught exception: Error: /Accellera/CCI/SET_PARAM_FAILED: Value rejected by
callback.
In file: <removed by verify.pl>
In file: <removed by verify.pl>
```

Cont'd

```
Info: sim_ip: @0 s, typed_pre_read_callback:sim_ip.param_2 (2) by cfg_ip
Info: cfg_ip: @0 s, config_ip::end_of_elaboration: [EXTERNAL] Current value of sim_ip.param_2 is 2
Info: sc_main: End Simulation.
Info: sim_ip: @0 s, typed_pre_read_callback:sim_ip.param_1 (10) by sim_ip
Info: sim_ip: @Dtor: Value of sim_ip.param_1 is 10
Info: sim_ip: @0 s, typed_pre_read_callback:sim_ip.param_2 (2) by sim_ip
Info: sim_ip: @Dtor: Value of sim_ip.param_2 is 2
```